

**A TURBINE BLADE AND A METHOD OF
MANUFACTURING AND REPAIRING A TURBINE BLADE**

Abstract

A turbine blade and a process for manufacture of turbine blades is provided comprising: casting as one piece a blade body and a first portion of an airfoil; forming a tip section having a tip cap and a second portion of an airfoil which is sized to fit on the first portion of the airfoil; and attaching the first portion of the airfoil to the second portion of the airfoil.

A process for repairing turbine blades is provided which comprises: removing the tip cap and a portion of the airfoil from the blade to form a repair surface on the airfoil; forming a replacement tip section comprising a replacement tip cap and a replacement portion of the airfoil sized to fit onto the repair surface; and attaching the replacement tip section to the repair surface.